



Dr. Dawn Lindsay

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March 6, 2020

Dr. James Fielder, Jr.
Secretary of Higher Education
Maryland Higher Education Commission
6 North Liberty Street
Baltimore, MD 21201

Dear Dr. Fielder:

Anne Arundel Community College (AACC) requesting approval for a new program, the Technical Studies: Apprentice, Associate of Applied Science. This proposed degree includes pathways to a degree for individuals who have successfully completed a Maryland Department of Labor (MDOL) registered apprenticeship program and earned an industry certification and/or license. Prospective students may be employed in their industry and seeking to earn an associate's degree to become eligible for promotion or small business ownership and other entrepreneurial opportunities. Currently there is no direct way for individuals to earn credit for apprenticeship learning using standard prior learning assessment tools. Thus, this proposal articulates the credits that an apprentice shall be awarded for the completed MDOL registered apprenticeship. Timing is critical; this workforce is primed and waiting for this new pathway to degree completion. This program is consistent with the college's mission in that it will allow us to respond "to the needs of our diverse community by offering high quality, affordable, accessible, and innovative life-long learning opportunities."

We are excited about this new degree submission. Thank you and we look forward to the Maryland Higher Education Commission's decision. Should you have any questions, please contact Dr. Alycia Marshall, Associate Vice President for Learning & Academic Affairs at aamarshall@aacc.edu or (410) 777-2776.

Sincerely,


Dr. Dawn Lindsay
President

cc: Michael Gavin, Ph.D., Vice President, Learning
Alycia Marshall, Ph.D., Associate Vice President for Learning & Academic Affairs
Kip Kunsman, M.S., Dean, Continuing Education and Workforce Development

Nanci Beier, M.A., Registrar
Tara Carew, M.B.A., Director, Financial Aid



Cover Sheet for In-State Institutions

New Program or Substantial Modification to Existing Program

Institution Submitting Proposal

Anne Arundel Community College

Each action below requires a separate proposal and cover sheet.


- | | |
|---|---|
| <input checked="" type="radio"/> New Academic Program | <input type="radio"/> Substantial Change to a Degree Program |
| <input type="radio"/> New Area of Concentration | <input type="radio"/> Substantial Change to an Area of Concentration |
| <input type="radio"/> New Degree Level Approval | <input type="radio"/> Substantial Change to a Certificate Program |
| <input type="radio"/> New Stand-Alone Certificate | <input type="radio"/> Cooperative Degree Program |
| <input type="radio"/> Off Campus Program | <input type="radio"/> Offer Program at Regional Higher Education Center |

 Payment ☒ Yes
 Submitted: ☐ No

 Payment ☐ R*STARS
 Type: ☒ Check

Payment Amount: 850.00

Date Submitted: 3/13/2020

Department Proposing Program	Apprenticeship and Applied Learning		
Degree Level and Degree Type	Undergraduate and Associate of Applied Sciences		
Title of Proposed Program	Technical Studies: Apprentice		
Total Number of Credits	60		
Suggested Codes	HEGIS:	CIP:	
Program Modality	<input checked="" type="radio"/> On-campus <input type="radio"/> Distance Education (<i>fully online</i>)		
Program Resources	<input checked="" type="radio"/> Using Existing Resources <input type="radio"/> Requiring New Resources		
Projected Implementation Date	<input checked="" type="radio"/> Fall <input type="radio"/> Spring <input type="radio"/> Summer Year: 2020		
Provide Link to Most Recent Academic Catalog	URL: https://catalog.aacc.edu/		
Preferred Contact for this Proposal	Name: Dr. Alycia Marshall		
	Title: Associate Vice President, Learning & Academic Affairs		
	Phone: (410) 777-2776		
	Email: aamarshall@aacc.edu		
President/Chief Executive	Type Name: Dr. Dawn Lindsay		
	Signature: 		Date: 3/19/2020
	Date of Approval/Endorsement by Governing Board: 02/25/2020		

Revised 3/2019

**MARYLAND HIGHER EDUCATION COMMISSION
ACADEMIC PROGRAM PROPOSAL**

PROPOSAL FOR:

- ☒ **NEW INSTRUCTIONAL PROGRAM**
☐ **SUBSTANTIAL EXPANSION/MAJOR MODIFICATION**
☐ **COOPERATIVE DEGREE PROGRAM**
☒ **WITHIN EXISTING RESOURCES** or ☐ **REQUIRING NEW RESOURCES**

(For each proposed program, attach a separate cover page. For example, two cover pages would accompany a proposal for a degree program and a certificate program.)

Anne Arundel Community College

Institution Submitting Proposal

Fall 2020

Projected Implementation Date

Associate of Applied Sciences

Award to be offered

Technical Studies: Apprentice

Title of Proposed Program

Suggested HEGIS Code

Suggested CIP Code

Apprenticeship and Applied Learning

Department of Proposed Program

Sandra J. Jones, Asst. Dean

Name of Department Head

Dr. Alycia Marshall

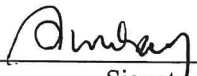
Contact Name

aamarshall@aacc.edu

Contact E-Mail Address

410-777-2776

Contact Phone Number

 3/12/2020
Signature and Date

President/Chief Executive Approval

February 25, 2020

Date

Date Endorsed/Approved by Governing Board

Technical Studies: Apprentice, Associate of Applied Science**A. Centrality to Institutional Mission and Planning Priorities:**

- 1. Provide a description of the program, including each area of pathway (if applicable), and how it relates to the institution's approved mission.**

The mission of AACC identifies teaching and learning as its primary focus and states that "With learning as its central mission, Anne Arundel Community College responds to the needs of our diverse community by offering high quality, affordable, accessible and innovative lifelong learning opportunities." Anne Arundel Community College's vision is that of "...a premier learning community that transforms lives to create an engaged and inclusive society." Anne Arundel Community College's philosophy is to "strive to embody the basic convictions of our country's democratic ideal: that individuals be given full opportunity to discover and develop their talents and interests; to pursue their unique potentials; and to achieve an intellectually, culturally and economically satisfying relationship with society."

The proposed Technical Studies: Apprentice Associate of Applied Science degree aligns with our college's mission providing a pathway to a degree for individuals who have successfully completed a Maryland Department of Labor (MDOL) registered apprenticeship program and earned an industry certification and/or license. Currently there is no direct way for individuals to earn credit for apprenticeship learning using standard prior learning assessment tools. Thus, this proposal articulates the credits that an apprentice shall be awarded for the completed MDOL registered apprenticeship regardless of whether the college offers the occupational training courses.

This program is not intended for transfer, but allows students to customize their program based on their requirements. Students will choose a pathway based on their personal goals. Program requirements are satisfied with the successful completion of the MDOL registered apprenticeship and proof of licensure or industry certification. Previous successfully completed college work may be applied to requirements where applicable.

The proposed degree requires that students choose a pathway in either Small Business Management or Construction Management. A pathway is a structured plan of study within a degree program. The number of credit hours and particular course requirements for a pathway may vary, as listed below. To achieve a pathway, students must receive credit for every course requirement listed under that pathway. (Appendix A)

- 2. Explain how the proposed program supports the institution's strategic goals and provide evidence that affirms it is an institutional priority.**

AACC is committed to helping students achieve their educational goals, which is the theme of AACC's strategic plan. Every decision is grounded in how students can be helped to achieve academic excellence and remain engaged with their own goals.

The college's strategic plan, *Engagement Matters: Pathways to Completion*¹, focuses on creating the ideal conditions to ensure that more students complete their educational goals and earn family sustaining wages. The college is pursuing this plan while adhering to the mission's central tenet

¹ http://www.aacc.edu/media/college/leadership/StrategicPlanBrochure_F16_WEB.pdf

of committing to academic excellence, which is the fundamental foundation upon which the work and continued reputation as a college of distinction is built.

The strategic plan is strongly rooted in national research and best practices and reflects the student journey through the key milestones of engagement, entry, progress and completion. This guided pathway approach aims to provide better structure through intentional programming and interventions that will help all students through each milestone. The overriding purpose of *Engagement Matters: Pathways to Completion* is to “increase completion by transforming the culture of the institution to ensure equity and that the college remains student-ready and committed to academic excellence.” The three Engagement Matters goals are:

- **Goal 1: Engagement & Entry** - Increase connection and enrollment of all students through a college-wide emphasis on equity, student success and academic excellence.
- **Goal 2: Progress** - Increase progress of all students through a college-wide emphasis on equity, student success and academic excellence.
- **Goal 3: Completion** - Increase completion of all students through a college-wide emphasis on equity, student success and academic excellence.

The proposed degree creates a pathway for students who have completed a Maryland Department of Labor (MDOL) registered apprenticeship program and earned an industry certification and/or license. This pathway has been designed to lead students to a degree through the awarding of college credit for apprenticeship learning. Currently, the college does not offer credit apprenticeship degree programs, this innovative approach demonstrates that the college values and recognizes the learning that is attained through apprenticeship programs.

Apprenticeship completers will be awarded twelve (12) credits for an apprenticeship program that spans four (4) years and consists of 8,000 hours of direct work experience and a minimum of 576 hours of training. Applicants must also present written proof of a Maryland license or a national/industry certification. In this case, the applicable apprenticeship programs are: Boiler Operator, Electrician, HVAC/R Technician, Machine Repairer (Maintenance), Maintenance Workers (Machinery), Pipefitter, Plumber, Sprinkler Fitter, Stationary Engineer, and Steamfitter.

To assure a level of competency in this program, a minimum of 18 credit hours of courses must be earned in a single discipline (pathway). The three letters used in a course designation (e.g. BPA or ACH) indicate the discipline to which it belongs. Students are also required to enroll in and complete a three-credit course that is approved to meet the college's diversity requirement which is included in the 24 credits of general education core courses. For additional information, see curriculum design in Appendix A.

3. **Provide a brief narrative of how the proposed program will be adequately funded for at least the first five years of program implementation. (Additional related information is required in section L.)**

The funding required to support instructional expenses for this program exists currently and additional funding needs are expected to be available through the departmental budgets as the program expands over the next five years. Current administrative and technical support is available to sustain the program for the next five years and no additional funding is required.

4. Provide a description of the institution's a commitment to:

a) Ongoing administrative, financial, and technical support of the proposed program.

AACC is committed to the ongoing administrative, financial, and technical support for this degree program. Since the degree will fall under the School of Continuing Education and Workforce Development's oversight, existing resources within the School will support the program. Technical support will be provided by the onsite technical call center through AACC's Information Services department. AACC's Virtual Campus will provide support and maintenance of the College's learning management system.

b) Continuation of the program for a period of time sufficient to allow enrolled students to complete the program.

The Small Business Management and Construction Management credit degree programs are preexisting offerings. The apprenticeship students taking advantage of this opportunity will increase enrollment in these programs. All college programs are assessed for viability based upon relevant content and applicability to workforce requirements along with enrollment trends. If a department decides to remove a credit program from the catalog, they take into consideration the students currently enrolled and ensure that they have ample time to complete their program.

B. Critical and Compelling Regional or Statewide Need as Identified in the State Plan:

1. Demonstrate demand and need for the program in terms of meeting present and future needs of the region and the State in general based on one or more of the following:

a) The need for the advancement and evolution of knowledge:

There is a great need within our community for the advancement and evolution of knowledge. As identified by the state plan "The completion of workforce training programs, credentials, and certificates holds tremendous value for those who complete them."² The proposed degree is designed to serve students in related trade occupations and the state's workforce shortage by providing two pathways towards an associates in applied science degree. Additionally, individuals are working in increasingly complex environments which require technical, management, and communications skills. In order to keep up and remain competitive, the citizens of Maryland must continue to advance and evolve their knowledge. One way to do this is to add to their current skill set in order to adapt to the changing environment and changing demands of the workplace and society in this century. Students who successfully complete the degree will be able to add value to their company and their career by expanding their management and communications skill set. They may become eligible for promotion or small business ownership and other entrepreneurial opportunities.

The college convened the Clauson Center for Innovation and Skilled Trades Advisory Committee (CCIT) comprised of 20+ local skilled trades businesses to address workforce issues. The CCIT Advisory Committee fully endorses these degree initiatives that will allow current employees to earn credit for apprenticeship learning, certification, and licensure. They also believe that these programs will professionalize and provide opportunities for

² <https://mhec.state.md.us/About/Documents/2017.2021%20Maryland%20State%20Plan%20for%20Higher%20Education.pdf>

advancement of their workforce.

b) Societal needs, including expanding educational opportunities and choices for minority and educationally disadvantaged students at institutions of higher education:

This program greatly expands the educational opportunities and choices for minority and educationally disadvantaged students at institutions of higher education. The students, because of their socioeconomic standing, that initially chose an apprenticeship or other workforce certification program that allowed them to earn a living while attaining education, training and an industry certification, may now complete an associate's degree. Their industry credentials will provide 12 college credits directly addressing the needs of educationally disadvantaged students. With the approval of this degree program, AACC (as an open access institution) will be particularly well-positioned to draw on the existing diversity of its minority and educationally disadvantaged student populations to recruit degree candidates with an aptitude to develop the requisite skills and cultural competencies for functioning effectively and appropriately in settings serving the community.

2. Provide evidence that the perceived need is consistent with the Maryland State Plan for Postsecondary Education³.

Goal 1: Access: AACC offerings remain an affordable and accessible option to citizens of Anne Arundel County and the surrounding area. The proposed degree is an exceptionally affordable option for students especially because apprenticeship completers will be awarded twelve (12) credits. The degree program also increases access to employable skills that align with the Maryland State Plan for Postsecondary Education.

Goal 2: Success: Like all of the degree programs at AACC, this degree boasts a clear pathway for students to earn their degree. Couple that with AACC's transparent college policies, admissions and enrollment procedures, and wrap-around student support services (e.g.: Advising, library services, tutoring, Writing Center, Veteran Support Center, etc.), AACC aims to support student success in a myriad of ways and make completing this certificate streamlined and straight-forward.

Goal 3: Innovation: Consistent with the Maryland State Plan, AACC continues to offer innovative programs that are instructed by credentialed and experienced faculty members.

C. Quantifiable and Reliable Evidence and Documentation of Market Supply and Demand in the Region and State:

1. Describe potential industry or industries, employment opportunities, and expected level of entry (ex: mid-level management) for graduates of the proposed program.

The proposed degree was developed for individuals that have successfully completed an apprenticeship program and earned an industry license/certification. Prospective students may be employed in their industry and seek to earn an associate's degree to become eligible for promotion opportunities to possibly include mid-level management positions. Others may be searching for a new opportunity as a business owner. At the current time, there isn't an easily attainable pathway for these individuals to earn college credits for their prior learning and in turn assist in attaining an associate's degree within a timely manner. Our incumbent workforce is

³ <https://mhec.state.md.us/About/Documents/2017.2021%20Maryland%20State%20Plan%20for%20Higher%20Education.pdf>

anxiously awaiting this opportunity. Christopher Hadfield, Director of Education with Associated Builders and Contractors of Greater Baltimore the largest organization in Maryland to represent the commercial construction industry, echoed these thoughts as he shared with AACC, “Get ready for 100-200 new students.”

2. Present data and analysis projecting market demand and the availability of openings in a job market to be served by the new program.

Based on Maryland Apprenticeship and Training Council’s 2017 Annual Report, annual enrollments in apprenticeship programs has increased from 8,136 in 2014 to 9,532 in 2017 representing an increase of 17.16%. Looking forward, based on an employment data query through Economic Modeling (Emsi) for Anne Arundel County and the surrounding six counties will experience an 18.2% increase in the need for apprenticeship completers from 2018 to 2023. Completers in the ten selected apprenticeships listed below will be ideal candidates for this new educational degree option and will enable students to be eligible for promotions within their chosen field.

3. Discuss and provide evidence of market surveys that clearly provide quantifiable and reliable data on the educational and training needs and the anticipated number of vacancies expected over the next 5 years.

Based on Emsi Occupation Snapshot Reports, the ten eligible apprenticeships for the degree program are projecting an increase in the need for trained workers over the next five years. The average of projected growth of this group is 6.3%, with a low of 2% and a high of 9%.

TABLE 1: Emsi Occupational Snapshot Reports	
Occupation	Timeframe: 2019-2024
Boiler Operator	3% Projected Growth
Electrician	2% Projected Growth
HVAC/R Technician	8% Projected Growth
Machine Repairer, Maintenance	6% Projected Growth
Maintenance Workers, Machinery	5% Projected Growth
Pipefitter	9% Projected Growth
Plumber	9% Projected Growth
Sprinkler Fitter	9% Projected Growth
Stationary Engineer	3% Projected Growth
Steamfitter	9% Projected Growth

4. Provide data showing the current and projected supply of prospective graduates.

Based on Maryland Apprenticeship and Training Council’s 2017 Annual Report, annual enrollments in apprenticeship programs has increased from 8,136 in 2014 to 9,532 in 2017 representing an increase of 17.16%. Looking forward, based on an employment data query through Economic Modeling (Emsi) for Anne Arundel County and the surrounding six counties will experience an 18.2% increase in the need for apprenticeship completers from 2018 to 2023.

The number of available apprenticeships will increase along with number of apprentices based on Governor Hogan’s strategic vision for the workforce system. Outlined in the state’s Combined State Plan, the vision is to provide businesses with the skilled workforce needed to compete in the global, regional, and local economies. An integral strategy within that vision is the expansion of Registered Apprenticeship opportunities. The state’s goal is to align Registered Apprenticeships

with Maryland's workforce system to ensure that traditional and non-traditional Registered Apprenticeships expand alongside the creation of new opportunities grounded in labor market demand. Specifically, Maryland's Combined State Plan notes, "[by] aligning apprenticeships with the Workforce Innovation and Opportunity Act (WIOA) system, Maryland will ensure traditional apprenticeship opportunities that are grounded in market demand."⁴ This degree offers yet another avenue for professional development and a recognized credential for apprenticeship completers.

D. Reasonableness of Program Duplication:

- 1. Identify similar programs in the State and/or same geographical area. Discuss similarities and differences between the proposed program and others in the same degree to be awarded.**

TABLE 2: Peer Institution Degree Completion Opportunities for Apprentice/Licensure Completer	
Anne Arundel Community College⁵	<ul style="list-style-type: none"> • Proposed Program Name: Technical Studies: Apprentice Associate of Applied Science • Proposed program includes: <ul style="list-style-type: none"> ○ 60 Credits Required for Degree ○ Credits through Prior Learning Assessment for apprenticeship completion; 12 credits ○ Areas of Pathway: 18 credits <ul style="list-style-type: none"> ▪ Small Business Management ▪ Construction Management ○ Courses that will meet the college's general education requirements (24 credits) ○ Previous successfully completed college work may be applied to requirements where applicable • Projected time to complete: 2.5 – 3 years • Proposed tuition for program: \$5,568 (in-county); \$11,088 (out-of-county); \$18,960 (out-of-state) • Pre-requisite: <ul style="list-style-type: none"> ○ Successfully complete a MDOL registered apprenticeship and proof of an industry-recognized licensure or certification. The apprenticeship must consist of no less than 2,000 hours of employment and at least 144 hours of related training/instruction each year for four years ○ Successfully complete one or more credit courses at Anne Arundel Community College (AACC) in order to receive credit for prior learning posted on an AACC student transcript ○ Apply for admission and select the Technical Studies: Apprentice, A.A.S. as the program of study ○ Eligibility for ENG 101/ENG 101A

⁴ <https://www.dlir.state.md.us/employment/appr/apprannreport.pdf>

⁵ <https://catalog.aacc.edu/index.php?catoid=25>

<p>Community College of Baltimore County⁶</p>	<ul style="list-style-type: none"> • Program Name: Heating, Ventilation and Air Conditioning (HVAC) & Energy Technology, Associate of Applied Science • Program includes: <ul style="list-style-type: none"> ○ 60 Credits Required for Degree ○ Credits through Prior Learning Assessment for apprenticeship completion; 1-29 credits ○ General education requirements: 19 credits ○ Program elective requirements: 15 credits • Projected time to complete: 2.5 – 3 years • Proposed tuition for program: \$3,782-\$7,198 (in-county); \$7,285-\$13,865 (out-of-county); \$11,067-\$21,063 (out-of-state) • Pre-requisite: <ul style="list-style-type: none"> ○ Successfully complete an Industry Certification, Licensure, or Apprenticeship that is listed on the approved CCBC crosswalk ○ Eligibility is based on assessment and/or successful completion of ESOL 052 and ESOL 054 or ACLT 052 or ACLT 053
<p>Harford Community College⁷</p>	<ul style="list-style-type: none"> • Program Name: Associate of Technical and Professional Studies (ATPS) • Proposed program includes: <ul style="list-style-type: none"> ○ 60 Credits Required for Degree ○ Credit for Prior Learning Assessment for Industry Recognized Credentials (IRC) up to 30 credits ○ General education requirements are specific to each degree • Projected time to complete: 2.5 – 3 years • Proposed tuition for program: \$3,986-\$7,574 (in-county); \$6,783-\$12,888 (out-of-county); \$9,580-\$18,202 (out-of-state) • Pre-requisite: <ul style="list-style-type: none"> ○ Successfully complete an IRC this is listed on the approved HCC crosswalk ○ Attain at least a C- grade in ENG 101 English Composition

2. Provide justification for the proposed program.

The proposed degree program offers an opportunity for individuals who have completed a Maryland Department of Labor (MDOL) registered apprenticeship program and earned an industry certification and/or license, a path to a degree by the award of college credit. If approved, would be the only program in the state to award an AAS credit in Apprenticeship completion in the following areas: Boiler Operator, Electrician, HVAC/R Technician, Machine

⁶ <https://www.ccbcmd.edu/Resources-for-Students/Academic-Advisement/Prior-Learning-Assessment/Industry-Certification.aspx>

⁷ <http://www.harford.edu/student-services/testing/prior-learning-assessment.aspx>

Repairer (Maintenance), Maintenance Workers (Machinery), Pipefitter, Plumber, Sprinkler Fitter, Stationary Engineer, and Steamfitter.

E. Relevance to High-demand Programs at Historically Black Institutions (HBIs)

Since this program is not intended for transfer, the proposed degree program has no foreseeable impact, negatively or positively, on programs at HBI's.

F. Relevance to the identity of Historically Black Institutions (HBIs)

Since this program is not intended for transfer, the proposed degree program has no foreseeable impact, negatively or positively, on programs at HBI's.

G. Adequacy of Curriculum Design, Program Modality, and Related Learning Outcomes (as outlined in COMAR 13B.02.03.10):

1. Describe how the proposed program was established, and also describe the faculty who will oversee the program.

At AACC, currently there is no direct way for individuals to earn credit for apprenticeship learning using standard prior learning assessment tools. This proposal aims to rectify this situation by providing a pathway to a degree for individuals who have successfully completed a Maryland Department of Labor (MDOL) registered apprenticeship program and earned an industry certification and/or license.

The oversight of the proposed degree will reside in the School of Continuing Education and Workforce Development, Apprenticeship and Applied Learning Department. The Assistant Dean of Continuing Education and Workforce Development will have the direct responsibility to ensure that the program abides by college policies and procedures. They will coordinate with the Office of Prior Learning Assessment and department chairs and assistant deans in the associated credit departments to monitor academic standards and rigor of the program. All departments will provide guidance to support student achievement and degree completion.

2. Describe educational objectives and learning outcomes appropriate to the rigor, breadth, and (modality) of the program.

All of the college's credit courses have stated educational objectives and learning outcomes that not only support the particular courses topics area, they are required to directly relate to the college's ten College-Wide Core Competencies.

Upon successful completion of this program, students will be able to:

1. Communicate complex ideas and information through writing, speaking, presenting, and using technology.
2. Locate, organize, and analyze information from multiple sources in order to develop informed, reasoned, and substantiated arguments.
3. Apply mathematical skills, quantitative reasoning, and scientific reasoning to solve problems and interpret quantitative information.

4. Explain the significance of social diversity, respect for cultural values, and appreciation of differences among students, including race, religion, age, gender, sexual orientation, nationality, ethnicity, and ability.
5. Meet individual program learning outcomes for the courses students take within their pathway and for other elective courses outside the general education requirements.

The assessment activities may take diverse forms including, but not limited to, standardized assessments, placement tests, faculty-developed evaluations, focus sessions, surveys, and evaluation of student work. The college believes that such input is vital to its responsibility to maintain quality instruction. Therefore, class time may be used at times for these activities and it is expected that students will participate in the processes when asked. Confidentiality of responses is ensured.

3. Explain how the institution will:

a) Provide for assessment of student achievement of learning outcomes in the program

Anne Arundel Community College is committed to ensuring that its students and graduates are among the best-prepared citizens and workers of the world by offering high quality, affordable, and accessible learning opportunities while also continuing the institution's excellence, accountability, and continuous learning. To this end, practices and procedures are established to ensure faculty, staff, and administrators systematically assess student learning outcomes at the course, program, and institution levels.

All academic departments maintain assessment plans for their programs and courses that outline learning outcomes, curriculum mapping, assessments, and data collection cycles. Assessments to measure student learning take many forms including exams, research papers and other written assignments, class discussions, performances, and lab exercises. These assessment items are mapped to course-level and program-level learning outcomes. Measures of student learning are aggregated to the appropriate level (course, program, institution) to provide the basis for faculty discussions on curriculum, pedagogy, and assessment. In addition to periodic program-level learning outcomes assessment, all credit degree and certificate programs are reviewed on a 4-year cycle for evidence of: program retention and completion, success in program foundational courses, enrollment, value-added, and assessment practices. Program review also include a review of program outcomes.

b) Document student achievement of learning outcomes in the program

The Business Management and the Construction Management areas document evidence of student achievement of learning outcomes on a cyclical basis in the college's assessment management system (AMS). Documentation includes learning outcomes, curriculum maps, assessment plans, findings (data and analysis), and action plans.

4. Provide a list of courses with title, semester credit hours and course descriptions, along with a description of program requirements.

See Appendix A

5. Discuss how general education requirements will be met, if applicable.

The proposed degree meets the college's general education requirements of 24 credits, which includes a three-credit course that is approved to meet the college's diversity requirement. Previous successfully completed college work may be applied to general education requirements, where applicable.

6. Identify any specialized accreditation or graduate certification requirements for this program and its students.

To be eligible to enroll in this program, prospective students must, successfully complete a MDOL registered apprenticeship. The apprenticeship must consist of a program that spans four (4) years and consists of 8,000 hours of direct work experience and a minimum of 576 hours of related training/instruction each year. To be eligible for the proposed program, all students must provide proof of an appropriate industry certification and/or licensure as well as proof of successful completion of a MDOL registered apprenticeship.

7. If contracting with another institution or non-collegiate organization, provide a copy of the written contract.

Not Applicable.

8. Provide assurance and any appropriate evidence that the proposed program will provide students with clear, complete, and timely information on the curriculum, course and degree requirements, nature of faculty/student interaction, assumptions about technology competence and skills, technical equipment requirements, learning management system, availability of academic support services and financial aid resources, and costs and payment policies.

AACC provides all students with clear, complete, and timely information on the curriculum, course and degree requirements, nature of faculty/student interactions, assumptions about technology competence and skills, technical equipment requirements, learning management system, availability of academic support services, and financial aid resources, and costs and payment policies.

Anne Arundel Community College ensures accuracy of program presentation in advertising, recruiting and admissions materials by using procedural processes through a connected curriculum/catalog software system where content managers and the college catalog editor review and update in a collegial partnership with our Strategic Communications (Marketing) department. If this program is approved, the catalog will present clear and accurate curricular information to include course and degree requirements, available course formats and information about technology assumptions about competency, equipment requirements, and the learning management system.

Each student also receives a course syllabus from their instructor that outlines the course content to be covered and the nature of faculty/student interactions as appropriate for that course and course format. For online courses or courses with an online component, students are made aware about assumptions of technology competence and skills, technical equipment requirements, and the College's learning management system (Canvas). This information for each course may be provided via the course syllabus or directly by the instructor during the first few class sessions.

In addition, each new student is encouraged to attend an orientation session, either online or in person. Orientation offers an introduction to all the various aspects of academic and campus life at AACC. Students learn tips for academic success, hear a variety of AACC student success stories, learn more about MyAACC, the student portal, meet faculty members, join a student organization, meet fellow students and take a campus tour.

Students have access to the complete range of services available at AACC in support of achieving their educational goals.⁸ The college website, catalog⁹, and a myriad of other materials outline the comprehensive services available to students: Academic Services, Student Records, Campus Amenities, Careers & Employment, Disability Support Services, Child Care Services, Health & Personal Counseling Services, Student Achievement & Success, and Technology.

The majority of AACC credit students receive some form of financial aid, scholarships, or financial support. AACC's Financial Aid & Veterans Benefits office¹⁰ provides financial assistance to students and families, allowing them to participate fully in the total educational experience. More information on how to apply for scholarships and grants is found on the college website¹¹, as is information on tuition, fees, and methods of payment.¹²

All admissions and outreach materials are the same for all students, and accurately represent programs and services available. Notice of nondiscrimination and information on Title IX, ADA and Title 504 contacts are provided.

9. Provide assurance and any appropriate evidence that advertising, recruiting, and admissions materials will clearly and accurately represent the proposed program and the services available.

Anne Arundel Community College ensures accuracy of program presentation in advertising, recruiting, and admissions materials by using procedural processes through a connected curriculum/catalog software system where content managers and the college catalog editor review and update in a collegial partnership with Strategic Communications. Anne Arundel Community College's homepage has links to six major headings, two of which directly apply to college majors and credit courses (earn a degree, certificate or college credits, and earn college credits while in high school). The main page for each heading has relevant advertising, recruiting and admissions information. In addition, across the top of every page are direct links to Programs & Courses, Apply & Register, Costs & Paying for College, Resources for Students, Campus Life & Activities, and About Us.

H. Adequacy of Articulation

If applicable, discuss how the program supports articulation with programs at partner institutions. Provide all relevant articulation agreements.

Not Applicable.

I. Adequacy of Faculty Resources (as outlined in COMAR 13B.02.03.11).

⁸ <https://www.aacc.edu/resources/>

⁹ <https://catalog.aacc.edu/>

¹⁰ <https://www.aacc.edu/about/administrative-offices/financial-aid/>

¹¹ <https://www.aacc.edu/costs-and-paying/credit-costs-and-payment/financial-aid-and-scholarships/>

¹² <https://www.aacc.edu/costs-and-paying/credit-costs-and-payment/credit-tuition-and-fees/>

1. Provide a brief narrative demonstrating the quality of program faculty. Include a summary list of faculty with appointment type, terminal degree title and field, academic title/rank, status (full-time, part-time, adjunct) and the course(s) each faculty member will teach (in this program).

TABLE 3: Faculty Resources				
Small Business Management Pathway				
Name	Terminal Degree, Title and Field	Academic Title	Status	Courses
Dr. Anthony Baker	Ph.D., Walden University	Assistant Professor	Full-time	BPA 103
Beverly Beatty	M.B.A., M.S., University of Baltimore; C.P.A.	Professor	Full-time	BPA 201, BPA 217
Steve Berry	M.B.A., University of Maryland University College	Instructional Specialist	Full-time	BPA 162
Stephanie Goldberg	M.S., Johns Hopkins University	Assistant Professor	Full-time	BPA 125, BPA 126, BPA 127
Theresa Kotkiewicz	M.B.A., Fordham University; C.I.A.	Assistant Professor	Full-time	BPA 111, BPA 142, BPA 162
Dr. Gretchen Mester	Ph.D., University of Oregon	Professor	Full-time	ECO 121, 211
Michael O'Rourke, J.D.	J.D., University of Maryland School of Law	Professor	Part-time	BPA 253
Dr. John Sagi	Ph.D., George Washington University	Professor	Full-time	BPA 111, BPA 120,
Johnelka Stafford	M.B.A., University of Phoenix	Assistant Professor	Full-time	BPA 111, BPA 120, BPA 138
Brandi Ulrich	M.A., Johns Hopkins University	Assistant Professor	Full-time	BPA 142, BPA 172
Susan Wilson	B.S., University of Delaware	Adjunct	Part-time	BPA 250
Peter Wirig, J.D.	J.D., University of Baltimore School of Law	Professor	Full-time	BPA 253
Dr. Erica Yeager	Ph.D., University of Florida	Professor	Full-time	BPA 105
Bill Yuan	M.I.M., University of	Associate Professor	Full-time	BPA 111, BPA 119

	Louvain, Belgium			
Mecael Yuan	M.B.A., Florida International University	Adjunct	Part-time	BPA 132
Construction Management Pathway				
Name	Terminal Degree, Title and Field	Academic Title	Status	Courses
Steve Berry	M.B.A., University of Maryland University College	Instructional Specialist	Full-time	BPA 162
Shawn Danoff	M.B.A., Florida International University	Adjunct	Part-time	BPA 235
Theresa Kotkiewicz	M.B.A., Fordham University; C.I.A.	Assistant Professor	Full-time	BPA 111, BPA 142, BPA 162
Robert Lowe	M.A., Morgan State University	Assistant Professor	Full-time	ACH 111, ACH 242
Michael O'Rourke, J.D.	J.D., University of Maryland School of Law	Professor	Full-time	BPA 253
Carol Pearce	M.Arch., Catholic University of America, LEED G.A., Maryland C.I.D.	Assistant Professor	Full-time	ACH 121, ACH 245
Michael Ryan	M Arch, Catholic University of America; C.C.S.; C.C.A.; R.A.; N.C.A.R.B.	Professor	Full-time	ACH 111, ACH 242
Dr. John Sagi	Ph.D., George Washington University	Professor	Full-time	BPA 120
Brandi Shepard	M.B.A., Marylhurst University	Assistant Professor	Full-time	ACH 122, ACH 216, ACH 219, ACH 242, ACH 230
Steven White	MG.A., University of Maryland University College	Assistant Professor	Full-time	BPA 106

2. Demonstrate how the institution will provide ongoing pedagogy training for faculty in evidenced-based best practices, including training in:

a) Pedagogy that meets the needs of the students

Anne Arundel Community College provides professional development for faculty in pedagogy that includes student-centered, content focused, evidenced-based effective teaching practices that improve student learning. Competency-based faculty professional development learning opportunities occur in a variety of formats including face-to-face workshops, online and hybrid courses, focused signature series programs, and department specific mini workshops. These opportunities are facilitated by internal teaching faculty and expert consultants. A menu of focused faculty development programs aligned to the priorities for the Division of Learning to include a focus on teaching effectiveness and pedagogy is provided yearly. Faculty may select from these signature programs for their required professional development plans.

Anne Arundel Community College faculty development is designed to deepen the faculty member's understanding of concepts, skills, and teaching strategies that lead to substantial learning experiences for students. Faculty content experts engage in professional development opportunities focused on understanding and applying a learner-centered approach to college teaching linking theory to practice. Structures and strategies necessary for student learning of challenging content, critical thinking, and collaboration are taught to faculty utilizing adult learning theory and incorporating active learning. Faculty are provided with formal and informal opportunities to collaborate with colleagues and learn in job-embedded contexts for discipline/course specific content instruction. Faculty are supported in expanding their instructional practices through these formal professional development opportunities and through colleague to colleague professional development including learning structures such as mentoring, coaching, teaching squares, book studies, and colleague to colleague observation and feedback. In addition, supervisors routinely provide opportunities for feedback and reflection.

b) The learning management system

AACC utilizes the Canvas learning management system for all courses. All full- and part-time faculty must complete Online Focus/Online Focus-Applied training prior to teaching and/or developing an AACC online or hybrid course. Online Focus provides online faculty an understanding of teaching online and best practices in course design, facilitation and technology integration. Online Focus-Applied provides online faculty an opportunity to build or substantially improve an online or hybrid course utilizing best practices in course design and quality standards. Separate training is also available for faculty only using the learning management system for teaching in a face-to-face mode. In all of these trainings, instruction regarding online pedagogy is both provided and modeled. An emphasis is placed on strategies that facilitate communication, develop higher order thinking and problem solving skills, and engage learners in the online environment. The value of clear navigation, explicit instructions, accessibility, and format of appropriate assessments are also focused on. Lectures for all didactic courses are placed online through the Canvas system.

c) Evidenced-based best practices for distance education, if distance education is offered.

Faculty content developers will work in collaboration with instructional designers to develop courses that adhere to institutional course design best practices as informed by the essential standards for course design. Additionally, trainings, presentations, demonstrations, and model courses are available to faculty regarding evidenced-based best practices for distance education.

J. Adequacy of Library Resources (as outlined in COMAR 13B.02.03.12).

- 1. Describe the library resources available and/or the measures to be taken to ensure resources are adequate to support the proposed program. If the program is to be implemented within existing institutional resources, include a supportive statement by the President for library resources to meet the program's needs.**

The college's Andrew G. Truxal Library has a collection of over 148,000 books, 150 print periodicals, 560 CDs, 2,650 DVDs and 65 online databases offering access to more than 15,000 electronic journals and magazines, 35,000 electronic books, hundreds of thousands of digital images and hours of streaming video and audio. The library provides access to the Internet for educational research purposes. All textbooks used in the proposed curriculum are available in the library for students to use. The textbooks will be available both to be checked out and in the reference section. Resources are periodically reviewed for current content and availability. Library staff were consulted during the program development phase and determined that adequate resources are available for the students in the proposed program.

K. Adequacy of Physical Facilities, Infrastructure and Instructional Equipment (as outlined in COMAR 13B.02.03.13)

- 1. Provide an assurance that physical facilities, infrastructure and instruction equipment are adequate to initiate the program, particularly as related to spaces for classrooms, staff and faculty offices, and laboratories for studies in the technologies and sciences. If the program is to be implemented within existing institutional resources, include a supportive statement by the President for adequate equipment and facilities to meet the program's needs.**

The proposed degree program will be implemented using existing institutional resources which are adequate to meet the program's needs. No new facilities or resources will be required.

- 2. Provide assurance and any appropriate evidence that the institution will ensure students enrolled in and faculty teaching in distance education will have adequate access to:**

a) An institutional electronic mailing system,

AACC provides all students with a student college email address. In addition, there is an electronic mailing system within the Canvas learning management system. Canvas is a robust and comprehensive learning management system that features tools for group discussions as well as private email communication with the instructor and among students. Additionally, they may use any of the other Canvas features such as posting announcements and discussion boards.

b) A learning management system that provides the necessary technological support for distance education

AACC has an easy-to-use learning management system, Canvas, which students can either learn on their own, virtually attend Canvas online training, or receive help from the helpdesk or instructors. The helpdesk (410-777-HELP) that is available during the week and on weekends. There are also computers in the Truxal Library for student use. Canvas provides the necessary technological support that this certificate needs. All courses have a Canvas course shell in which faculty are required to post their syllabus and to use the Canvas gradebook. Additionally, they may use any of the other Canvas features such as posting announcements and discussion boards. It also features an accessible online gradebook that all instructors are required to use and update regularly. Assignments can be assessed directly in Canvas using easily accessible tools for providing and viewing instructor feedback.

L. Adequacy of Financial Resources with Documentation (as outlined in COMAR 13B.02.03.14)

- 1. Complete Table 1: Resources and Narrative Rationale. Provide finance data for the first five years of program implementation. Enter figures into each cell and provide a total for each year. Also provide a narrative rationale for each resource category. If resources have been or will be reallocated to support the proposed program, briefly discuss the sources of those funds.**

TABLE 1 – RESOURCES					
Resource Categories	Year 1	Year 2	Year 3	Year 4	Year 5
1. Reallocated Funds	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2. Tuition/Fee Revenue (c + g below)	\$33,750.00	\$41,310.00	\$53,840.70	\$62,080.34	\$75,498.15
a. Number of F/T Students	3	3	4	4	5
b. Annual Tuition/Fee Rate	\$4,500.00	\$4,590.00	\$4,681.80	\$4,775.44	\$4,870.95
c. Total F/T Revenue (a x b)	\$13,500.00	\$13,770.00	\$18,727.20	\$19,101.74	\$24,354.75
d. Number of P/T Students	15	20	25	30	35
e. Credit Hour Rate	\$150.00	\$153.00	\$156.06	\$159.18	\$162.36
f. Annual Credit Hour Rate	9	9	9	9	9
g. Total P/T Revenue (d x e x f)	\$20,250.00	\$27,540.00	\$35,113.50	\$42,978.60	\$51,143.40
3. Grants, Contracts & Other External Sources	\$0	\$0	\$0	\$0	\$0
4. Other Sources	\$0	\$0	\$0	\$0	\$0
TOTAL (Add 1 – 4)	\$33,750.00	\$41,310.00	\$53,840.70	\$62,080.34	\$75,498.15

Financial Data – Resources

- 1. Reallocated Funds:** None
- 2. Tuition and Fee Revenue:** Tuition & Fees are estimated to increase by 2% each year.
- 3. Grants and Contracts:** None
- 4. Other Sources:** None
- 5. Total Year:** None

- 2. Complete Table 2: Program Expenditures and Narrative Rationale. Provide finance data for the first five years of program implementation. Enter figures into each cell and provide a total for each year. Also provide a narrative rationale for each expenditure category.**

Note: The students will be enrolled in existing open enrollment course sections offered in the Small Business Management and Construction Management credit degree programs. The college anticipates no additional expenditures.

TABLE 2 - EXPENDITURES					
Expenditure Categories	Year 1	Year 2	Year 3	Year 4	Year 5
1. Faculty (b+c below)	\$12,027	\$12,267	\$12,512	\$12,762	\$13,017
a. # FTE	0.40	0.40	0.40	0.40	0.40
b. Total Salary	\$11,172	\$11,395	\$11,623	\$11,855	\$12,092
c. Total Benefits	\$855	\$872	\$889	\$907	\$925
2. Admin. Staff (b + c below)	\$0	\$0	\$0	\$0	\$0
a. # FTE	\$0	\$0	\$0	\$0	\$0
b. Total Salary	\$0	\$0	\$0	\$0	\$0
c. Total Benefits	\$0	\$0	\$0	\$0	\$0
3. Support Staff (b + c below)	\$0	\$0	\$0	\$0	\$0
a. # FTE	\$0	\$0	\$0	\$0	\$0
b. Total Salary	\$0	\$0	\$0	\$0	\$0
c. Total Benefits	\$0	\$0	\$0	\$0	\$0
4. Equipment	\$0	\$0	\$0	\$0	\$0
5. Library	\$0	\$0	\$0	\$0	\$0
6. New or Renovated Space	\$0	\$0	\$0	\$0	\$0
7. Other Expenses	\$0	\$0	\$0	\$0	\$0
TOTAL (Add 1 – 7)	\$12,027	\$12,267	\$12,512	\$12,762	\$13,017

Financial Data – Expenditures

1. Faculty Funds: We anticipate the need to allocate existing funds to support .4 FTE in adjunct pay to support ongoing instruction needs for the proposed program.

2. Administrative Staff Funds: None.

3. Supportive Staff Funds: None.

4. Equipment: None

5. Library: None.

6. New or Renovated Spaces: None.

7. Other Expenses: None

Note: The students will be enrolled in existing open enrollment course sections offered in the Small Business Management and Construction Management credit degree programs. The college anticipates no additional expenditures.

M. Adequacy of Provisions for Evaluation of Program (as outlined in COMAR 13B.02.03.15).

1. Discuss procedures for evaluating courses, faculty and student learning outcomes.

All courses and faculty at AACC are evaluated by students using the online Student Opinion Forms (SOFs) at the conclusion of each semester. These forms have standard Likert questions

with opportunities for anecdotal feedback. Students are also given the opportunity to leave comments in some of the criteria and to render a summary judgment of the course and teaching faculty. All faculty are evaluated each academic year based on the college's evaluation form which includes a review of student opinion form data. Student opinion form data is also reviewed and evaluated during the faculty promotion and tenure processes. In addition to soliciting student input for faculty and course evaluation, faculty colleagues conduct classroom visitations and peer evaluations in the second and fifth year of employment and at any time of consideration for promotion or tenure for full-time faculty. Adjunct faculty are evaluated by a peer or supervisor in the first year of employment and every three years thereafter and/or at the time of consideration of promotion.

Student learning outcomes will be assessed by evaluating data collected via the Canvas Learning Platform data collection tool. Data will be collected from a number of assessment sources, including essays, exams, and quizzes. Faculty will compare global achievement levels with the current set of student learning outcomes to determine the utility and effectiveness of the learning outcomes. This procedure leaves open the possibility of future adjustment to ensure that these outcomes drive optimal classroom instruction and yield useful data.

2. Explain how the institution will evaluate the proposed program's educational effectiveness, including assessments of student learning outcomes, student retention, student and faculty satisfaction, and cost-effectiveness.

The College has an established Office of Assessment and Instructional Innovation. The Director of Assessment and Instructional Innovation meets regularly with a faculty-run subcommittee on Learning Outcomes Assessment, a sub-committee of the Teaching and Learning Committee. The mission of the subcommittee on Learning Outcomes Assessment is to guide and oversee program-level outcomes assessment throughout the college. The Office of Assessment and Instructional Innovation provides tools to the college's various programs to assist in regular program assessment, including an Annual Program/Department Assessment Report and a Curriculum Mapping Template to ensure alignment of course objectives and outcomes with department and/or program outcomes as well as college-level core competencies.

The college conducts regular evaluations of degree programs with respect to enrollment, retention, curriculum relevancy, and outcomes assessment. All programs undergo a comprehensive review on a staggered 4-year cycle, using a Comprehensive Program Review Template that contains program data scored on a rubric. The template includes metrics in the areas of program continuation and completion, course success, headcount and program outcomes assessment. Also required is completion of a Program Review Narrative, which includes action items. The entire package is then reviewed in meetings that include the program chair/director, Assistant Dean, Director of Assessment and Instructional Innovation, Dean, Associate Vice President for Learning (AVPL), and the Vice President for Learning. The purpose of the program review meeting is to share program successes and address program needs. To ensure progress is being made on action items, the Office of the AVPL requires the Deans to complete two-year interim reports. Program review meetings and discussions also include consideration of programs costs and return on investment to address cost effectiveness and the impact on student and community needs. Each year the program progress is evaluated in the Assessment of Outcomes and Educational Effectiveness Plan. In addition, National exam pass rates are also evaluated during this process.

Student satisfaction with courses and instruction is assessed for each course and instructor each semester through the collection of feedback through student opinion forms. Through student

opinion forms, students can assess and comment on the course content, delivery and instruction. This information is used for faculty evaluation and considerations for promotion and tenure.

N. Consistency with the State's Minority Student Achievement Goals (as outlined in COMAR 13B.02.03.05).

1. Discuss how the proposed program addresses minority student access & success, and the institution's cultural diversity goals and initiatives.

A key feature of AACC's mission and strategic planning involves respecting, valuing and achieving diversity. AACC's Diversity Statement¹³ asserts that AACC is committed to supporting and sustaining a diverse and inclusive educational environment. Diversity is not merely a goal, but a value that is embedded throughout the institution in multiple areas including, but not limited to, learning, teaching, student development, institutional functioning, and engagement in partnerships with the local and global community.

The proposed program is well positioned to increase access to minority and diverse student populations to career opportunities and advancement in a variety of fields. The goals of the proposed program include providing diverse students access to high quality curricula, instruction and educational experiences while ensuring equity of course and program outcomes through periodic and comprehensive program assessment as discussed above.

This proposed degree program greatly expands the educational opportunities and choices for minority and educationally disadvantaged students at institutions of higher education. The students because of their socioeconomic standing, that initially chose an apprenticeship or other workforce certification program that allowed them to earn a living while attaining education, training and an industry certification, may now complete an associate's degree.

O. Relationship to Low Productivity Programs Identified by the Commission:

1. If the proposed program is directly related to an identified low productivity program, discuss how the fiscal resources (including faculty, administration, library resources and general operating expenses) may be redistributed to this program.

Not applicable.

P. Adequacy of Distance Education Programs (as outlined in COMAR 13B.02.03.22)

1. Provide affirmation and any appropriate evidence that the institution is eligible to provide Distance Education.

Anne Arundel Community College has been approved to offer one or more degree or certificate/diploma programs for which students could meet 50% or more of their requirements by taking distance education courses by Middle States Commission on Higher Education. AACC utilizes the Canvas platform to provide online lectures to students. In addition the college has distance education classrooms equipped with cameras and audio to share lectures with students in offsite facilities.

¹³ <https://www.aacc.edu/about/diversity-and-inclusivity/>

- 2. Provide assurance and any appropriate evidence that the institution complies with the C-RAC guidelines, particularly as it relates to the proposed program.**

Not applicable.

References

1. Anne Arundel Community College Strategic Plan FY 2017-20 (2016) Retrieved from: http://www.aacc.edu/media/college/leadership/StrategicPlanBrochure_F16_WEB.pdf
2. 2017-2021 Maryland State Plan for Postsecondary Education FY Retrieved from: <https://mhec.state.md.us/About/Pages/2017StatePlanforPostsecondaryEducation.aspx>
3. 2017-2021 Maryland State Plan for Postsecondary Education FY Retrieved from: <https://mhec.state.md.us/About/Pages/2017StatePlanforPostsecondaryEducation.aspx>
4. Maryland Apprenticeship and Training Council's 2017 Annual Report Retrieved from: <https://www.dlir.state.md.us/employment/appr/apprannreport.pdf>
5. Anne Arundel Community College Online Catalog (2019-2020) Retrieved from: <https://catalog.aacc.edu/index.php?catoid=25>
6. Community College of Baltimore County Prior Learning Assessment Office Retrieved from: <https://www.ccbcmd.edu/Resources-for-Students/Academic-Advisement/Prior-Learning-Assessment/Industry-Certification.aspx>
7. Harford Community College Prior Learning Assessment Office Retrieved from: <http://www.harford.edu/student-services/testing/prior-learning-assessment.aspx>
8. Resources for Students (2019) Retrieved from: <https://www.aacc.edu/resources/>
9. Anne Arundel Community College Online Catalog (2019-2020) Retrieved from: <https://catalog.aacc.edu/>
10. Financial Aid and Veterans Benefits (2019) Retrieved from: <https://www.aacc.edu/about/administrative-offices/financial-aid/>
11. Financial Aid and Scholarships (2019) Retrieved from: <https://www.aacc.edu/costs-and-paying/credit-costs-and-payment/financial-aid-and-scholarships/>
12. Credit Tuition and Fees (2019) Retrieved from: <https://www.aacc.edu/costs-and-paying/credit-costs-and-payment/credit-tuition-and-fees/>
11. AACC's Diversity Statement Retrieved from: <https://www.aacc.edu/about/diversity-and-inclusivity/>

APPENDIX A**Technical Studies: Apprentice (A.A.S.)**

To qualify for an associate degree, students must fulfill the following requirements:

1. Completion of a minimum of 60 credit hours, 15 of which must be earned at Anne Arundel Community College. A minimum of 30 of the required 60 credit hours must be earned through direct classroom instruction (including distance learning classes).
2. Achievement of an adjusted cumulative grade point average of 2.0 or higher.
3. Completion of the course and general education requirements of a program or curriculum as described in the college catalog. Any catalog may be used provided that it is for the current year or one of the four preceding academic years, and is for a year in which the student completed at least one credit or developmental class. On a student's application for graduation he/she will declare the catalog year to be used.
4. Submission of a graduation application through MyAACC by the deadline.

General Education Requirements: 24

An approved list of general education courses can be found in the General Education and Diversity, Technology and Wellness Requirements section of the catalog. Choose general education courses from the following topics:

English Composition: 6 credits

ENG 101 Academic Writing and Research 1

ENG 102 Academic Writing and Research 2

ENG 101 and ENG 101A are equivalent courses. Students may take ENG 101-ENG 102 or ENG 101A-ENG 102 to meet their English Composition General Education requirement.

Arts and Humanities: 3 credits

COM 111 Fundamentals of Oral Communication

Biological and Physical Sciences: 3 credits

See General Education Biological and Physical Sciences Requirements for a list of approved courses.

Mathematics: 3 credits

See General Education Mathematics Requirements for a list of approved courses.

Social and Behavioral Sciences: 3 credits

See General Education Social and Behavioral Sciences Requirements for a list of approved courses.

Students are encouraged to take a Social and Behavioral Science course that also satisfies the college Diversity Requirement. See [Diversity Requirement](#) for a list of approved courses.

Additional General Education Requirements: 6 credits

Technology: 3 credits

See General Education Technology Requirements for a list of approved courses.

Wellness: 3 credits

See General Education Wellness Requirements for a list of approved courses.

Program Requirements: 12 credits

Successful completion of Maryland (MDOL) approved apprenticeship and proof of Maryland State Licensure or Industry Certification

Small Business Management Pathway: 21 credits

Provides comprehensive skills necessary for a successful and satisfying business career. Exposes students to all aspects of today's rapidly changing and technologically challenging business environment. Prepares students for careers in the global economy. A program chosen from a core of courses considered essential for any business student and from a broad range of electives. Students are expected to select a four-course area of pathway that will permit them to enter a variety of business occupations. The groups of courses listed are examples of appropriate and logical selections in an area of pathway. Required courses cannot be used as area of pathway electives.

BPA 111 Business and Its Environment	3 credit hours
BPA 120 Small Business Management	3 credit hours
BPA 162 Business Communications	3 credit hours

AND choose 12 credits from the following:

BPA 125 Marketing Principles	3 credit hours
BPA 138 Business and Professional Ethics	3 credit hours
BPA 142 Principles of Management	3 credit hours
BPA 172 Human Resource Management	3 credit hours
BPA 201 Financial Accounting	3 credit hour

OR

BPA 217 Small Business Accounting	3 credit hours
BPA 250 Legal Issues for Business	3 credit hours

OR

BPA 253 Business Law 1	3 credit hours
ECO 121 Introduction to Economics	3 credit hours

OR

ECO 211 Principles of Economics 1	3 credit hours
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Construction Management Pathway: 21 credits

Training in the organization and management of both large and small construction projects. Develop skills in the areas of project management, construction estimating, materials and methods of construction, and construction documentation. Teaches and integrates principles of business management as applied to construction technology.

ACH 111 Graphic Communication 1: Composition and Delineation	3 credit hours
ACH 121 Construction Technology 1	3 credit hours
ACH 122 Construction Technology 2	3 credit hours

Note: Based upon an individual's earned certificate or license, some courses (e.g., ACH 111, ACH 121 or ACH 122) may not be required and with permission, substitutions can be made.

AND choose 12 credits from the following:

ACH 216 Construction Management	4 credit hours
ACH 218 Construction Operations	4 credit hours
ACH 219 Construction Contract Administration	3 credit hours
ACH 230 Cost Estimating for Construction	4 credit hours
ACH 242 Environmental Systems for Design	3 credit hours

ACH 245 Digital Technologies 1
BPA 162 Business Communications

3 credit hours
3 credit hours

Elective: 3 credits

Choose any elective.

Diversity Requirement

All students in associate degree programs must satisfy the [Diversity Requirement](#). Students should satisfy this requirement with the General Education Social and Behavioral Science course selection as noted above.

Technology Requirement

Satisfied by above General Education Technology course

Wellness Requirement

Satisfied by above General Education Wellness course

Program Outcomes

Upon successful completion of this program, students will be able to:

1. Communicate complex ideas and information through writing, speaking, presenting, and using technology.
2. Locate, organize, and analyze information from multiple sources in order to develop informed, reasoned, and substantiated arguments.
3. Apply mathematical skills, quantitative reasoning, and scientific reasoning to solve problems and interpret quantitative information.
4. Explain the significance of social diversity, respect for cultural values, and appreciation of differences among students, including race, religion, age, gender, sexual orientation, nationality, ethnicity and ability.
5. Meet individual program learning outcomes for the courses students take within their pathway and for other elective courses outside the general education requirements.

Course Number, Title and Credit Hours	Course Description
BPA 111 - Business and Its Environment 3 credits	Explore the way that business is related to, and interacts with, individuals, groups, and institutions in the 21st century. Learn the terminology and concepts of the functional areas of business, setting the foundation for interpreting and analyzing the legal, social, and ethical issues facing business (both the institution and its members) today. Examine global awareness and cultural diversity throughout the course. Prepare for a career in business and/or a business career in the arts, sciences, and technologies. Lab fee \$5. Note: Eligibility for ENG 101/ENG 101A recommended.
BPA 138 - Business and Professional Ethics 3 credits	Explores the moral landscape of today's business environment. Discusses ethical issues and dilemmas of professionals in business, public administration, accounting and other professions. Prerequisite(s): Eligibility for ENG 101/ENG 101A.

BPA 142 - Principles of Management 3 credits	A survey of basic managerial functions. Emphasis is on planning, organizing, controlling and staffing activities as applied to general management.
BPA 162 - Business Communications 3 credits	Examine all aspects of business communications. Focus on written reports and proposals, oral presentations including interviewing skills and persuasive proposals as well as electronic communications including email, social media and business research on the Internet. Prerequisite(s): Eligibility for ENG 101/ENG 101A.
BPA 201 - Financial Accounting 3 credits	Learn principles of financial accounting for the corporate entity. Study accrual-based accounting and the accounting cycle. Analyze and record financial transactions; prepare financial statements; and learn to account for receivables, inventories, fixed assets, liabilities and shareholders' equity. Prerequisite(s): Eligibility for ENG 101/ENG 101A and eligibility for any general education math course or permission of department chair.
BPA 250 - Legal Issues for Business 3 credits	Learn legal consequences in the launch and operation of a business. Examine practical ways to minimize liability in areas such as business organization and management, obligations created by contracts and torts, and relationships between employers and employees and between creditors and debtors. Study government regulation and property interests, and intellectual property law. Lab fee \$5.
BPA 253 - Business Law 1 3 credits	Study basic principles of law and their impact on common business transactions. Explore sources of law, the judicial system, a wrongdoer's liability for harm to society (crimes) and to the injured party (torts), the formation and performance of contracts, the ownership and transfer of personal and real property, principals and their agents and factors to be considered in choosing the form of a business (partnerships and corporations) to be organized. Lab fee \$5.
ECO 121 - Introduction to Economics 3 credits	Identify and illustrate how markets work with the use of demand and supply. Analyze consumer behavior and economic behavior of the firm under varying conditions. Discuss use of national income accounting (GDP) as a measure of the health of the economy. Examine and calculate GDP to analyze and implement fiscal and monetary policies.
ECO 211 - Principles of Economics 1 3 credits	Explore macroeconomic theory and policy. Identify and illustrate how markets work with the use of demand and supply. Discuss use of national income accounting (GDP) as a measure of the health of the economy. Examine unemployment, inflation and business cycles as they relate to the economy and

	possible policy prescriptions. Examine and calculate GDP to analyze and implement fiscal and monetary policies. Prerequisite(s): Eligibility for MAT 137.
BPA 120 - Small Business Management 3 credits	Principles and practices involved in and necessary for owning and operating a small business. Areas of study include assessment of qualification for business ownership, market determination, site locations, capital and credit requirements, risk management and insurance, record-keeping and personnel management. The purpose of this course is to provide information to prospective and new small business operators.
BPA 103 - Introduction to Entrepreneurship 3 credits	Discover and practice the components of entrepreneurship, idea generation, creative thinking, and opportunity recognition. Experiment using entrepreneurial methods and evaluate potential business ideas. Compare and analyze various strategies entrepreneurs have used to start and grow their businesses. Lab fee \$10.
BPA 105 - Exploring the Future 3 credits	This course meets the Social and Behavioral Sciences General Education Requirement. This course meets the Diversity Requirement. Investigate the future in a changing world. Using tools and perspectives across fields of study and cultures, students expand foresight and build the future. Acquire an appreciation for the complexity of our global society and its diversity.
BPA 119 - Global Business 3 credits	Explore the factors affecting the success or failure of businesses operating abroad. Analyze general theories of trade and economic development, specific organizations and monetary systems, the foreign forces impacting business and management applications.
BPA 125 - Marketing Principles 3 credits	An introduction to the principles governing the distribution of goods and services at various levels of distribution. The management viewpoint is stressed, and emphasis is on making decisions regarding product, price, promotion and place.
BPA 126 - Advertising and Sales Promotion 3 credits	Study promotional activities relating to industry, including the writing of advertising copy, layout and design of newspaper and print advertising, the production of radio and television commercials, media selection and the measurement of advertising effectiveness. Lab fee \$10.
BPA 127 - eMarketing 3 credits	Learn the core concepts of an eMarketing campaign. Explore email marketing, online advertising, social media, viral marketing, website copywriting and design, and other electronic tools used in supporting a traditional marketing campaign.
BPA 132 - Sales and Sales Training 3 credits	A study of the principles and techniques of selling as practiced by retail sales personnel, wholesalers'

	representatives and by the industrial sales force. Topics include buying psychologies, product knowledge, demonstration techniques, handling customer resistance and closing the sale.
BPA 172 - Human Resource Management 3 credits	Practical and theoretical considerations concerning the management of personnel. Covers all aspects of staffing including recruiting and interviewing, selection and placement. A human resource manager's role regarding training and development, performance appraisal, labor relations and compensation are among the areas studied. Also includes laws affecting employee rights and management responsibility (Americans with Disabilities Act, Civil Rights Act, Equal Pay Act, Sexual Harassment).
BPA 217 - Small Business Accounting 3 credits	Use Quickbooks® software (included with text, Windows®-based) for the study of computerized accounting systems with emphasis on the application of accounting theory and practice. Complete projects for both a service and merchandising company, including creating a company, recording transactions for revenue and expenses, completing payroll, adjusting accounts, reconciling bank accounts and closing the accounting cycle. Use a personal computer for downloading, copying, opening, naming, saving, compressing and uploading data files. Lab fee \$10. Prerequisite(s): Eligibility for ENG 101/ENG 101A or permission of department chair.
ACH 111 - Graphic Communication 1: Composition and Delineation 3 credits	Examine the built environment through exploration of basic design concepts and learning design vocabulary. Explore various drawing types and production methods representative of the design and construction industries. Develop designs using composition and presentation techniques utilized in the architecture, interior, landscape and construction professions. Lab fee \$40. Corequisite(s): ACH 121 or permission of department chair.
ACH 121 - Construction Technology 1 3 credits	Examine the built environment through exploration of basic materials and methods used in construction. Apply environmental factors from site analysis to general design principles. Evaluate structural theory, wood frame construction methods, thermal and moisture protection, fenestration and interior finishes commonly used in building design. Create construction details of connections commonly used to join materials in residential construction. Lab fee \$40. Corequisite(s): ACH 111 or permission of the department chair.
ACH 122 - Construction Technology 2 3 credits	Continue to examine the built environment through exploration of materials and methods used in

	<p>construction. Apply sustainable design practices commonly found in commercial construction systems, such as masonry, steel, and concrete. Emphasize construction methods used in structural systems, use of building systems and detailing of commercial construction. Lab fee \$40.</p> <p>Prerequisite(s): ACH 111 and ACH 121, or permission of department chair.</p>
<p>ACH 216 - Construction Management 4 credits</p>	<p>Explore basic principles and skills required to organize and manage large construction projects. Examine the professional role and liability during the design and construction process. Focus on the construction project from the organizational management perspective. Lab fee \$40.</p> <p>Prerequisite(s): ACH 122 or concurrent enrollment in ACH 122 or permission of department chair.</p>
<p>ACH 218 - Construction Operations 4 credits</p>	<p>Explore basic principles and elements required to organize, operate and manage small-, medium- and large-sized construction companies. Apply processes of estimating, bidding, scheduling, procurement, value engineering and construction safety. Analyze the construction project from the executive perspective. Lab fee \$40.</p> <p>Prerequisite(s): ACH 216 or permission of the department chair.</p>
<p>ACH 219 - Construction Contract Administration 3 credits</p>	<p>Examine the construction contract document set from a contractor's point of view. Review and interpret construction contracts and conditions, specifications and drawings. Explore the legality of the construction document set from bidding requirements through contract changes. Examine the relationship between the project manual and construction drawings Lab fee \$40.</p> <p>Prerequisite(s): ACH 122 or permission of the department chair.</p>
<p>ACH 230 - Cost Estimating for Construction 4 credits</p>	<p>Examine the role of cost estimating in the construction process. Identify concerns and processes related to and involved with estimating construction costs. Review economic factors that affect construction costs. Categorize and calculate construction costs by building materials and systems. Lab fee \$40.</p> <p>Prerequisite(s): ACH 122 and ACH 219 and eligibility for MAT 045, or permission of department chair.</p>
<p>ACH 242 - Environmental Systems for Design 3 credits</p>	<p>Explore the impacts buildings have on individuals and the environment. Assess the effects of healthy interior and exterior environments on society. Examine sustainable design principles and the LEED (Leadership in Energy and Environmental Design) green building rating system. Evaluate the various systems commonly used in building construction and</p>

	the impact of sustainable and high performance design. Lab fee \$40.
ACH 245 - Digital Technologies 1 3 credits	Review computer applications used by architects, interior designers, and others involved in design and construction. Discuss how common and specialized CAD software applied to the design and construction industry along with the specialized hardware associated with these fields. Explore the use and application of peripherals such as plotters and scanners. Practice how basic computer functions, file management, graphic presentation, and CAD are applied to design and construction. Lab fee \$40. Prerequisite(s): ACH 111 and CTA 100 or CTP 103 or permission of department chair.
BPA 162 - Business Communications 3 credits	Examine all aspects of business communications. Focus on written reports and proposals, oral presentations including interviewing skills and persuasive proposals as well as electronic communications including email, social media and business research on the Internet. Prerequisite(s): Eligibility for ENG 101/ENG 101A.
BPA 106 - Introduction to Project Management 3 credits	Study the basics of project management. Explain the concepts behind successful project management and investigate the key elements of the project management framework. This course addresses the core material of the CompTIA Project+ exam objectives. Lab fee \$25. Prerequisite(s): CTA 100 or CTP 103 and eligibility for ENG 101/ENG 101A.
BPA 120 - Small Business Management 3 credits	Principles and practices involved in and necessary for owning and operating a small business. Areas of study include assessment of qualification for business ownership, market determination, site locations, capital and credit requirements, risk management and insurance, record-keeping and personnel management. The purpose of this course is to provide information to prospective and new small business operators.
BPA 142 - Principles of Management 3 credits	A survey of basic managerial functions. Emphasis is on planning, organizing, controlling and staffing activities as applied to general management.
BPA 235 - Introduction to Transportation and Logistics 3 credits	Surveys the organization and operations of the commercial transportation industry and its impact on the bottom-line of today's modern businesses. Course topics include the legal and regulatory environment, costing and pricing, major transportation options, managing transportation partnerships and the use of information and technology in the logistics sector. The course also includes an industry specific "current issues" component, an "employment opportunities" section that explores the industry job market and a

	look at the technologies and issues that will shape the future of transportation and logistics.
BPA 253 - Business Law 1 3 credits	Study basic principles of law and their impact on common business transactions. Explore sources of law, the judicial system, a wrongdoer's liability for harm to society (crimes) and to the injured party (torts), the formation and performance of contracts, the ownership and transfer of personal and real property, principals and their agents and factors to be considered in choosing the form of a business (partnerships and corporations) to be organized. Lab fee \$5.